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(54) **Electrostatic ink jet printer and head**

(57) An ink jet printing head (100) has a protrusion member (6) extending from an electrophoretic electrode (20) in an ink chamber of a base plate to an orifice (1), and the top end of convex portion (40) thereof protrudes passing through the orifice to the opposite electrode (25). Accordingly, an ink droplet (60) of an ink always flies from the top end of the protrusion member in the orifice and the flying direction is stabilized. Further, since the top end of the convex portion of the protrusion member projects passing through the orifice, it can be prevented that the ink meniscus retracts into the orifice to form a concave portion after the flying of the ink droplet.

Further, since the protrusion member is secured to the electrophoretic electrode opposed to the orifice, the toner particles in the chamber can be moved along the protrusion member to the orifice when a biased voltage is applied to the electrophoretic electrode, and the degree of concentration of the toner particles to the orifice can be increased.

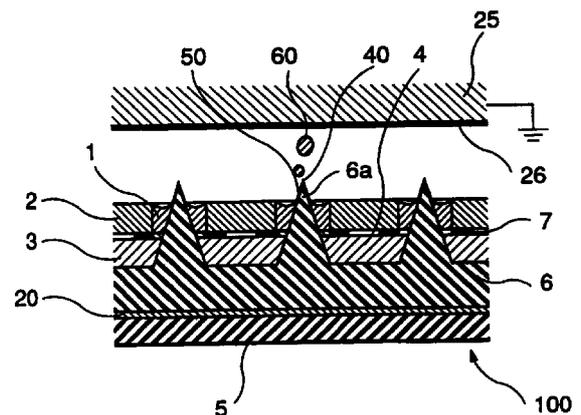


FIG.10



European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 97 11 8084

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	EP 0 703 081 A (TOSHIBA) 27 March 1996	1	B41J2/06
Y	* column 27, line 6 - line 7; figures 19,26A,27 *	2-5	
	* column 27, line 27 - line 31 *		
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	-----		TECHNICAL FIELDS SEARCHED (Int.Cl.6)
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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 29 March 1999	Examiner Bardet, M
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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